

Excerpts from Duke Energy Rate Settlement (2017) related to ratemaking adjustments for tax reform

Base Rate Adjustments:

12.

c. If the applicable federal or state income tax rate for DEF changes before any of the increases provided for in Paragraph 7, 12, 14, 15, 21, 24, or 37, DEF will adjust the amount of the base rate increase to reflect the new tax rate before the implementation of such increase, pursuant to the applicable methodology in Exhibit 6 (i.e. lines 1-14). Any base rate adjustments or changes that are implemented before the effective date of the Federal Corporate Income Tax Change will be adjusted as part of the overall method outlined in Paragraph 16 and Exhibit 6. The illustration of the methodology to be utilized for income tax changes described in this Paragraph 12 is shown in Exhibit 6. The Parties expressly agree that any proceeding to implement the base rate revenue increases associated with this Paragraph of the 2017 Second Revised and Restated Settlement Agreement shall not be a vehicle for a "rate case" type inquiry concerning the expenses, investment, or financial results of operations of the Company and shall not apply any form of earnings test or measure or consider previous or current base rate earnings.

Federal Corporate Income Tax Changes:

16.

a. Federal or state corporate income tax changes ("Tax Reform") can take many forms, including changes to tax rates, changes to deductibility of certain costs, and changes to the timing of deductibility of certain costs. Therefore the impact of Tax Reform could impact the effective tax rate recognized by DEF in FPSC adjusted reported net operating income and the measurement of existing and prospective deferred federal income tax assets and liabilities reflected in the FPSC adjusted capital structure. When Congress last reduced the maximum federal corporate income tax rate in the Tax Reform Act of 1986, it included a transition rule that, as an eligibility requirement for using accelerated depreciation with respect to public utility property, specified the method and period for returning to customers the portion of the resulting excess deferred income taxes attributable to the use of accelerated depreciation. To the extent Tax Reform includes a transition rule applicable to excess deferred federal income tax assets and liabilities ("Excess Deferred Taxes"), defined as those that arise from the re-measurement of those deferred federal income tax assets and liabilities at the new applicable corporate tax rate(s), those Excess Deferred Taxes will be governed by the Tax Reform transition rule.

b. If Tax Reform is enacted before DEF's next general base rate proceeding, DEF will quantify the impact of Tax Reform on its Florida Jurisdictional base revenue requirement as projected in DEF's forecasted earnings surveillance report for the calendar year that includes the period in which Tax Reform is effective. DEF will also adjust base rate adjustments that have not yet gone into effect to specifically account for Tax Reform. The impacts of Tax Reform on base revenue requirements will be flowed back to retail customers, except that each year throughout the term of this 2017 Second Revised and Restated Settlement Agreement 40% of such impacts, up to \$50 million pre-tax, would be recorded

as an acceleration of depreciation expense associated with Crystal River Units 4 and 5, thereby reducing the FPSC-adjusted net operating income impact of Tax Reform by up to the after-tax impact of this accelerated depreciation. All remaining base rate impacts of Tax Reform will be flowed back to customers, within 120 days of when the Tax Reform becomes law, through a one-time adjustment to base rates upon a thorough review of the effects of the tax reform on base revenue requirements. This one-time adjustment shall be accomplished through a uniform percentage decrease to customer, demand and energy base rate charges, excluding delivery voltage credits, for all retail customer classes. Any effects of tax reform on retail revenue requirements from the effective date through the date of the one-time base rate adjustment shall be flowed back to customers through the CCR Clause on the same basis as used in any base rate adjustment. An illustration is included as Exhibit 6. If Tax Reform results in an increase in base revenue requirements, DEF will utilize deferral accounting as permitted by the Commission, thereby neutralizing the FPSC adjusted net operating income impact of the Tax Reform to a net zero, through the Term of this 2017 Second Revised and Restated Settlement Agreement. In this situation, DEF shall defer the revenue requirement impacts to a regulatory asset to be considered for prospective recovery in a change to base rates to be addressed in DEF's next base rate proceeding or in a limited scope proceeding before the Commission no sooner than the expiration of this 2017 Second Revised and Restated Settlement Agreement.

c. Excess Deferred Taxes shall be deferred to a regulatory asset or liability which shall be included in FPSC adjusted capital structure and flowed back to customers over a term consistent with law. If the same Average Rate Assumption Method used in the Tax Reform Act of 1986 is prescribed, then the regulatory asset or liability will be flowed back to customers over the remaining life of the assets associated with the Excess Deferred Taxes subject to the provisions related to FPSC adjusted operating income impacts of Tax Reform noted above. If the Tax Reform law or act is silent on the flow-back period, and there are no other statutes or rules that govern the flow-back period, then there is a rebuttable presumption that the following flow-back period(s) will apply: (1) if the cumulative regulatory liability is less than \$200 million, the flow-back period will be five years; or (2) if the cumulative regulatory liability is greater than \$200 million, the flow-back period will be ten years. DEF reserves the right to demonstrate by clear and convincing evidence that such five or ten year maximum period (as applicable) is not in the best interest of DEF's customers and should be increased to no greater than 50 percent of the remaining life of the assets associated with the Excess Deferred Taxes (referred to as the "50 Percent Period"). The relevant factors to support DEF's demonstration include, but are not limited to, the impact the flow-back period would have on DEF's cash flow and credit metrics or the optimal capitalization of DEF's jurisdictional operations in Florida. If DEF can demonstrate, by clear and convincing evidence, that limiting the flow-back period to the 50 Percent Period, in conjunction with the other Tax Reform provisions related to deferred taxes within this 2017 Revised and Restated Settlement Agreement, will be the sole basis for causing a full notch credit downgrade by each of the major rating agencies (i.e. Standard & Poor's and Moody's), the Commission shall be authorized to permit a longer flow-back period.

Proposed Storm Hardening Cost Recovery Clause

Initial Analysis

Summary

- The proposed storm hardening cost recovery clause:
 - Would allow utilities to recover, through charges separate from base rates, the prudent and reasonable costs of implementing “Transmission and Distribution Storm Protection Plans” submitted every 3 years and approved by the PSC, though there does not appear to be any significant difference between these plans and the 3-year plans required by current PSC rule;
 - Does not appear to require utilities to do any more than is currently required, but may allow a utility to spread the cost of local undergrounding projects across its entire customer population, potentially enabling undergrounding projects that may not have otherwise moved forward due to lack of funding from customers/cities that request such projects;
 - Includes a provision that diverts tax savings from rate reductions to storm hardening funds, which would likely upset existing rate settlements that require the tax savings to be reflected in rate reductions; and
 - May preempt part of the PSC storm hardening study recommended by the Select Committee.

Current Law

- Current law does not specifically address cost recovery for storm hardening activities by investor-owned electric utilities. Thus, such costs are recovered through each utility’s base rates, which are reset as needed, upon a showing by the utility that the costs are prudent and reasonable.
- The PSC, by rule, requires each utility to submit a storm hardening plan every 3 years. These plans are subject to PSC approval, taking into consideration whether the plan “meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties.” While the rule does not address cost recovery, it is highly likely that measures taken by a utility under a PSC-approved plan will be deemed prudent for purposes of setting base rates, though the level of costs reasonably necessary to implement those measures may be subject to debate in the rate case.
- Separate from base rates, cost recovery “clauses” have traditionally been used as mechanisms to allow utilities to recover specific types of costs that are volatile and beyond the utility’s control. This allows the utility to recover such costs as they are incurred, without the time and expense of a full proceeding to set base rates. These costs are still subject to a review for prudence and reasonableness in annual proceedings. To avoid double recovery, the PSC ensures that the same costs are not recovered through base rates and a cost recovery clause.
- Cost recovery clauses reduce the exposure of utility profits to periods of lower revenues between rate cases, because an annual true-up mechanism is used to ensure that the utility recovers all eligible costs and, if provided by law, a return on any investments being recovered through the clause. Thus, the more types of costs included in cost recovery clauses, the less risk exposure for utility profits.
- Each utility is currently charging base rates set through the terms of settlement agreements approved by the PSC. These agreements do not specifically address storm hardening activities, though the costs to implement measures approved in the 3-year storm hardening plans are presumably included in the rates set by those agreements. The terms of these agreements vary by utility, but each currently effective agreement (other than FPL’s) includes specific negotiated provisions for rate reductions to reflect the effects of tax reform.

Proposed Storm Hardening Cost Recovery Clause

- The proposed storm hardening cost recovery clause would allow utilities to recover, through charges separate from base rates, the prudent and reasonable costs of implementing “Transmission and Distribution Storm Protection Plans” submitted every 3 years and approved by the PSC. **There does not appear to be any significant difference between these plans and the 3-year plans required by current PSC rule.** The proposed standard of approval is similar to that required in the current PSC rule, though it replaces “cost-effective” with “cost-efficient.” It is not clear if the term “cost-efficient” is intended to suggest a different standard than “cost-effective” nor how it would apply.
- Given these similarities, **the proposal does not appear to require utilities to do any more than is currently required. It may allow a utility to spread the cost of local undergrounding projects across its entire customer population, potentially enabling undergrounding projects that may not have otherwise moved forward** due to lack of funding from customers/cities that request such projects. This would reflect a change from the existing policy which requires the “cost-causer” to pay. The proposal places a statutory limit on undergrounding (4% of lateral distribution lines per year); there’s no evidence to indicate that this is a reasonable number, and these type of parameters may be better addressed by the PSC.
- By shifting the associated costs from base rates to a cost recovery clause, the proposal would benefit utilities by reducing their profit exposure to lower revenues between rate cases. Further, the proposal would separate from base rates a type of cost that is neither volatile nor outside the control of the utilities. As discussed with respect to last year’s EUS PCB, cost recovery clauses are not subject to PSC rulemaking, allowing the PSC in some instances to make policy on a case-by-case basis with more limited input than rulemaking provides.
- **The provision that diverts tax savings from rate reductions to storm hardening funds would likely upset existing rate settlements that require the tax savings to be reflected in rate reductions.** These rate settlements presumably allow for recovery of reasonable storm hardening costs (those necessary to implement the current, PSC-approved 3-year plans) through base rates. This provision includes no requirement that the tax savings be used to pursue storm hardening activities beyond those already included in the 3-year plans. At worst, unless base rates are adjusted to remove storm hardening costs (which are not specifically identified in the rate settlements, so it’s not clear how to do this), customers may pay twice for the same hardening activities approved by the PSC. This is probably not intended but should be clarified.
- **The proposal may preempt part of the PSC storm hardening study recommended by the Select Committee.** In addition to requiring a study of the cost-effectiveness of various storm hardening measures, the study also requires the PSC to evaluate and provide recommendation on specific funding mechanisms, including processes for funding approval.

Tax Relief, Storm Restoration Costs, and Storm Hardening

What's the deal?

Tax Relief/Storm Restoration Costs

- The 2017 Tax Cuts and Jobs Act reduces the federal corporate tax rate from 35% to 21% and changes certain depreciation rules to allow deductions for capital projects to be front-loaded, providing cash benefits in the early years and shifting liability to later years.
- Currently, the rates for all 5 investor-owned electric utilities in Florida are set through PSC-approved rate settlements with consumer advocates. The rates for each utility factor in the 35% tax rate. Four of the five rate settlements include provisions that require the savings from any tax reform to be reflected, in whole or in part, through rate reductions. Florida Power & Light's rate settlement is silent on the issue of potential tax reform.
- FPL unilaterally announced that it will use the expected tax savings to pay for all of its restoration costs from Hurricane Irma. Duke Energy and Tampa Electric have announced that they have renegotiated their respective rate settlements to allow use of the tax savings to offset storm restoration costs. Gulf did not request storm cost recovery for 2017.
- The specifics for each investor-owned utility are as follows:
 - After Hurricane Irma, FPL requested approval from the PSC to recover of \$1.3 billion in storm restoration costs through a surcharge. FPL now states that it will apply its federal tax savings toward these costs to prevent an increase in rates. FPL did not request PSC approval, and its public statement does not indicate the estimated tax savings, the portion of storm costs that will be offset, or the time period over which the storm costs will be offset. FPL claims that its actions will avoid a rate increase of \$4 - \$5.50 a month for a residential customer.
 - After Hurricane Irma, Duke requested approval from the PSC to recover \$513 million in storm restoration costs (including rebuilding its storm reserve fund) through a surcharge over a 3-year period. Duke has renegotiated its rate settlement to allow it to apply \$135 million of its estimated tax savings annually toward these costs until they are recovered (about 3.5 years). (Duke estimates tax savings of \$185 million annually. Per its rate settlement, \$50 million annually must be used to write down the balance on two shuttered coal plants, and the remainder must be reflected in rate reductions. Under the renegotiated rate settlement, the remainder of the estimated tax savings – \$135 million annual – would be applied to storm restoration costs.) Duke claims that this will avoid a rate increase of \$5.20 a month for a residential customer who uses 1,000 kWh.
 - After Hurricane Irma, Tampa Electric requested approval from the PSC to recover \$102.5 million in storm restoration costs (including rebuilding its storm reserve fund) through a surcharge over a 9-month period. Tampa Electric has renegotiated its rate settlement to allow it to apply its expected 2018 tax savings of \$98 million toward its storm restoration costs and, when all storm costs are recovered (in about 1 year), to return any remaining tax savings to customers through lower rates. Tampa Electric claims that this will avoid a rate increase of \$4 a month for a residential customer who uses 1,000 kWh.
 - Gulf Power did not request recovery of storm restoration costs for 2017. Its rate settlement requires that its tax savings be reflected in rate reductions. This has not yet been quantified.
- **To ensure that customers pay no more than necessary, the PSC will continue or open proceedings this year, as necessary, to determine:**
 - The actual tax savings for each utility, including the impact of deferred taxes.
 - The appropriate amount of storm restoration costs for each utility.
- The PSC expects that final tax savings numbers will be determined by late 2018/early 2019.
- Rates will be trued-up (and actual rate impacts will be known) when storm costs and tax savings are finalized.

Proposed Storm Hardening Cost Recovery Clause

- Separate from the matter of recovering storm *restoration* costs, one or more utilities have proposed that the Legislature create a distinct cost recovery mechanism for storm *hardening* costs. Costs for storm hardening measures – pole inspections and replacements, vegetation management, forensic analysis, etc. – are currently recovered through each utility’s base rates, which are set through each of the current rate settlements. The rate settlements do not identify a specific level of costs for hardening but presumably set rates at a level sufficient to fund the activities identified in each utility’s storm hardening plans, which are submitted every 3 years to the PSC for review.
 - **Costs for undergrounding projects are not recovered through a utility’s general rates.** For purposes of setting general rates, the PSC includes the cost for installation of overhead power lines. A person or entity that requests new underground installation, or conversion of an existing overhead installation to an underground installation, must pay the utility a cost differential approved by the PSC. **The utility may waive part of the differential but must absorb the waived differential unless the PSC determines that there is a quantifiable benefit to the general body of ratepayers commensurate with the waived differential.** This reflects a long-standing policy of requiring the “cost-causer” to pay. On only one occasion has a utility justified spreading part of the cost among all ratepayers (where some of the project activities would have been required regardless of the undergrounding request).
- Since 2007, the PSC has required the utilities to file 3-year storm hardening plans and report annually on their storm hardening activities. These plans are subject to PSC approval, taking into consideration whether the plan “meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties.” The PSC’s approval of a plan does not provide approval of specific projects under the plan for cost recovery. Utilities must demonstrate the prudence of such costs in a rate case.
- The proposed storm hardening cost recovery clause would allow utilities to recover, through charges separate from base rates, the costs of implementing “Transmission and Distribution Storm Protection Plans” submitted every 3 years and approved by the PSC. There does not appear to be any significant difference between the description of these plans and the 3-year plans required by current PSC rule. The proposed standard for PSC review of the plans is similar to that required in the current PSC rule, but it replaces “cost-effective manner to the affected parties” with the more ambiguous phrase “cost-efficient manner.” More importantly, the PSC’s approval would amount to more than just a blessing of the plan, but an approval for the costs of the specific projects under the plan to be recovered through customer rates.
- **The proposal does not require utilities to do any more than is currently required. However, it allows a utility to include a certain amount of undergrounding projects in its plan (no more than 4% of its lateral distribution lines per year) and, if the plan is approved, to recover the costs of those projects through its general rates. This may allow a utility to spread the cost of local undergrounding projects across its entire customer base, rather than requiring the “cost-causer” to pay. This would reflect a policy shift. However, it would potentially enable undergrounding projects that may not have otherwise moved forward due to lack of funding from customers and communities that request such projects.**
- The proposal requires that the tax savings that would have flowed back to customers must be recorded into a storm hardening fund instead. This provision would likely upset existing rate settlements that require the tax savings to be reflected in rate reductions and may also upset the renegotiated rate settlements for Duke and Tampa Electric that require the tax savings to be flowed back to customers through a reduction in rates (e.g., through the elimination of storm restoration surcharges and through direct rate reductions.) At a minimum, this provision would need clarification to ensure that the costs currently embedded in base rates to cover storm hardening measures are not “double-recovered” through the proposed cost recovery clause.

- Other considerations:
 - The proposal appears to preempt part of the PSC storm hardening study recommended by the Select Committee and included in current proviso language. In addition to including a review of the cost-effectiveness of various storm hardening measures, the study also requires the PSC to evaluate and provide recommendation on specific funding mechanisms, including processes for funding approval.
 - Inevitably, there will be arguments among communities, which may reach the PSC, as to whose undergrounding project should be funded through this cost recovery clause. The standard of review in the proposal does not specify how the PSC should determine whether a proposed undergrounding projects for any particular community should be given precedence over approved when
 - Cost recovery clauses reduce the exposure of utility profits to periods of lower revenues between rate cases, because an annual true-up mechanism is used to ensure that the utility recovers all eligible costs and, if provided by law, a return on any investments being recovered through the clause. Accordingly, utilities would benefit from shifting storm hardening costs from base rates to a cost recovery clause.
 - Cost recovery “clauses” have traditionally been used as mechanisms to allow utilities to recovery specific types of costs, separate from base rates, that are volatile and beyond the utility’s control. Storm hardening costs are neither volatile nor outside the control of utilities. Cost recovery clauses are not generally subject to PSC rulemaking, allowing the PSC in some instances to make policy on a case-by-case basis with more limited input than rulemaking provides.

Additional Information

Storm Hardening Activities

- In 2007, the PSC adopted rules addressing hardening of transmission and distribution facilities for all electric utilities. Among other things, these rules:
 - Required utilities to file 3-year storm hardening plans (discussed in detail below).
 - Required electric utilities to develop construction standards which, at a minimum, meet the National Electrical Safety Code (NESC), and to the extent reasonably practical, feasible, and cost-effective for distribution facilities, be guided by the extreme wind loading standards specified by the NESC.
 - Require utilities, when calculating the cost differential between overhead and underground systems, to account for average historical storm restoration costs over the life of the facilities.
 - Allow utilities to waive part of the cost differential for undergrounding (otherwise payable by the applicant for undergrounding), and require utilities to absorb any waived differential unless the Commission determines that there is a quantifiable benefit to the general body of ratepayers commensurate with the waived portion.
- Since 2007, the PSC has required the utilities to file 3-year storm hardening plans and report on their storm hardening activities annually. (The report does not include specific undergrounding projects.) The PSC then reviews the utility reports and issue its own annual report. The PSC’s review does not include approval of specific plans or projects for cost recovery purposes. Utilities must demonstrate the prudence of costs through a rate case. The 2017 annual report from the PSC reflects utility activities through 2016. These activities include:
 - Vegetation management that ensures all overhead feeder circuits (main distribution lines) are cleared on a 3-year cycle and all lateral circuits (secondary distribution lines) are cleared on a 6-year cycle. Per the 2017 PSC report, all utilities are operating within the prescribed cycles.

- Auditing joint-use agreements for pole attachments by other parties (e.g., phone and cable) to ensure that poles are not compromised by being overloaded.
- Inspection of all transmission structures on a 6-year cycle. Per the 2017 PSC report, all utilities are operating within the prescribed cycles.
- Inspection of all wooden poles on an 8-year cycle to ensure compliance with the National Electric Safety Code.
- **Hardening of transmission structures** (e.g., converting from wooden structures to steel/concrete structures).
 - ** Per the 2017 PSC report:**
 - **40% of Duke's transmission poles remain to be hardened.**
 - **12% of FPL's transmission poles remain to be hardened.**
 - **2% of Gulf's transmission structures remain to be hardened.**
 - **33% of TECO's transmission poles remain to be hardened.**
- Gathering post-storm information and other outage information on competing technologies, performing forensic analysis, and assessing the reliability of overhead v. underground systems on an ongoing basis. Per the 2017 PSC report, differentiating between overhead and underground reliability performance and costs is still difficult because underground facilities are typically connected to overhead facilities and the interconnected systems of the IOUs address reliability on an overall basis. Further, the report notes that there was not storm damage in 2016 sufficient to provide useful data in this area.
- Coordination with local governments.
- Collaborative research on:
 - **Undergrounding existing distribution lines, including development of a model to project benefits and costs of overhead to underground conversions. Per the 2017 PSC report, Florida's utilities have worked with the Public Utility Research Center at UF to develop a computer model, but insufficient storm data had been produced through the end of 2016 to feed into the model.**
 - Data gathering and analysis of hurricane winds, including possible expansion of a simulator to test hardening approaches;
 - A public outreach initiative.
- Maintaining a natural disaster preparedness and recovery program.

Undergrounding Activities

- In response to data requests from the PSC staff, the 4 major investor-owned electric utilities provided data on January 18, 2018, related to the miles of underground distribution facilities added to their respective systems from 2006-2017. Due to cost and reliability considerations, a negligible amount of underground transmission additions were reported. The data shows:
 - FPL added an average of 103.5 miles of underground distribution facilities per year over the period. FPL does not maintain the data necessary to provide a breakdown between new underground construction and overhead-to-underground conversions.
 - **Approximately 35.8% (24,000 miles) of FPL's distribution lines are underground. About 2/3 of FPL's new distribution lines are installed underground.**
 - Duke Energy added an average of 242 miles of underground distribution facilities per year over the period. The vast majority of these facilities are new underground construction. In no year during that period did overhead-to-underground conversions exceed 16 miles.
 - **Approximately 44% (14,000 miles) of Duke's distribution lines are underground. Duke plans to convert 1,250 of existing overhead lines to underground in the next 10 years.**
 - Tampa Electric estimated that it added an average of 177 miles of underground distribution facilities per year over the period. Tampa Electric does not maintain the data necessary to

provide a breakdown between new underground construction and overhead-to-underground conversions.

**Approximately 44.2% (5,000 miles) of TECO's distribution lines are underground.

- Gulf Power added an average of 28 miles of underground distribution facilities per year over the period, the vast majority of which was new underground construction.

**Approximately 25% (1,905 miles) of Gulf Power's distribution lines are underground.

- In 2003, the PSC conducted a study to estimate the cost of converting all existing overhead distribution lines to underground lines. These numbers are only estimates and have likely changed since 2003:
 - Low Density Subdivision Residential: \$6.7 billion, \$2,475 per residential customer
 - Urban Residential: \$65.6 billion, \$11,288 per residential customer
 - Main Line Urban Feeders: \$12.4 billion, \$36,737 per commercial customer

Electric Utility Storm Hardening Activities and Related Cost Recovery

Storm Hardening Activities

Following the unusually active tropical storm seasons in 2004-2005, the Public Service Commission adopted rules in 2007 to address hardening of transmission and distribution facilities to mitigate storm damage. Among other things, these rules required utilities to file 3-year storm hardening plans and employ extreme wind loading standards for distribution facilities (where practical and cost-effective) and attempted to lessen the cost impact on applicants requesting service through new or converted underground facilities by allowing a utility to request that a portion of the cost of an undergrounding project be borne by all customers if a benefit to all ratepayers could be demonstrated.

Storm hardening activities required by the PSC include:

- Vegetation management:
 - 3-year cycle for clearing all overhead feeder circuits (main distribution lines)
 - 6-year cycle for clearing all lateral circuits (secondary distribution lines)
- Auditing joint-use agreements for pole attachments by other parties (e.g., phone and cable) to ensure that poles are not compromised by being overloaded.
- Inspection of all transmission structures on a 6-year cycle.
- Inspection of all wooden poles on an 8-year cycle to ensure compliance with the National Electric Safety Code.
- Hardening of transmission structures (e.g., converting from wooden structures to steel/concrete structures).
- Gathering post-storm information and other outage information on competing technologies, performing forensic analysis, and assessing the reliability of overhead v. underground systems on an ongoing basis.
- Coordination with local governments.
- Collaborative research on undergrounding existing distribution lines, data gathering and analysis of hurricane winds, and a public outreach initiative.
- Maintaining a natural disaster preparedness and recovery program.

Utilities must provide the PSC an annual update on these activities. With respect to hardening transmission structures, utilities and the PSC report the following:

Utility	No. of Structures Hardened (2016)	Average Annual Structures Hardened (2012-2016)	Average Cost per Year (2012-2016)	No. of Structures Remaining to be Hardened	% of Structures Remaining to be Hardened
Duke Energy	1,167 poles	2,377 poles	\$129 million	23,567 poles	40%
FPL	1,737 poles	1,559 poles	\$43.2 million (no data for '12)	7,925 poles	12%
Gulf Power	298 cross arms	221 cross arms (no data for '12)	Not available	57 cross arms	2%
Tampa Electric	940 poles 114 insulators	783 poles 163 insulators	\$15.1 million	7,038 poles	33% (poles)

Utilities do not list specific undergrounding projects in their storm hardening plans, as such projects are completed at the request of, and at the expense of, developers, communities, or individual customers. Undergrounding *transmission* lines is rare due to cost and reliability concerns. Costs for projects to underground *distribution* lines vary by project. Staff has gathered the following data with respect to undergrounding activities for distribution lines:

Utility	Average Annual Miles of Underground Distribution Facilities Installed* (2007-2016)	Total Miles of Underground Distribution Facilities	Underground Distribution Facilities as a % of Total Distribution Facilities
Duke Energy	242	14,000	44%
FPL	103.5	24,000	33.8%
Gulf Power	28	1,905	25%
Tampa Electric	177	5,000	44%

* A negligible amount of these installations were overhead to underground conversions. In 2005, the PSC estimated total costs of approx. \$84 billion to convert all existing overhead distribution lines.

Cost Recovery

A “Storm Protection Cost Recovery Clause” has been proposed for consideration. The table below shows the differences between current law and the proposed cost recovery mechanism.

	Current Law	Proposed
Storm Hardening Plans	Filed every 3 years for PSC review	Filed every 3 years for PSC review; may include undergrounding of up to 4% of all lateral distribution lines annually
Standard of PSC Review of Plans	“meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and <u>cost-effective manner to the affected parties;</u> ” separate review in rate case for cost recovery (see below)	“meets the desired objectives of enhancing reliability, strengthening infrastructure, and reducing restoration costs and outage times in a prudent, practical, and <u>cost-efficient manner;</u> ” and “ <u>is feasible, reasonable or practical in certain areas of the utility’s service territory</u> ” (appears to address undergrounding projects); approval allows for cost recovery
Undergrounding Projects	Not included in plan; <u>paid for by persons requesting such projects</u>	May be included in plan; <u>paid for by all ratepayers if included in approved plan</u>
Cost Recovery Mechanism	Rate case – <u>taking into account its overall costs and revenues, utility must prove that a certain level of storm hardening costs are prudent and should be included in base rates paid by all customers;</u> not connected to review of 3-year plans; excludes undergrounding projects	Annual cost recovery – <u>utility actions are deemed prudent if included in approved plan, and, without regard to overall costs and revenues, the costs (+ ROI) are included in a surcharge paid by all customers;</u> may include undergrounding projects; the prudence of implementing costs may be challenged (this is unclear)

Treatment of Tax Reform Savings*	Impact on rates to be addressed by PSC; specifically addressed in current rate settlements (Duke Energy, Gulf Power, and Tampa Electric) that require savings to be calculated and/or credited to customer rates during the terms of the settlements	<u>Must</u> be applied to storm protection fund if the utility is required to return the savings to customers; overrides the 4 rate settlements that address the use of tax savings (for approx. 3-4 remaining years each) and preempts the PSC and all electric utilities from returning any ongoing tax reform savings to customers through rate reductions
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* The 2017 Tax Cuts and Jobs Act reduces the federal corporate tax rate from 35% to 21% and changes certain depreciation rules to allow deductions for capital projects to be front-loaded, providing cash benefits in the early years and shifting liability to later years. Currently, the rates for all investor-owned electric utilities in Florida are set through PSC-approved rate settlements with consumer advocates. The rates for each utility factor in the 35% tax rate. All but one of the rate settlements include provisions that address potential savings from any tax reform. Florida Power & Light's rate settlement is silent on the issue of potential tax reform. Final PSC determinations of tax savings for each utility are expected by late 2018/early 2019. The following table summarizes the current status of each utility's expected tax savings:

Utility	Estimated Annual Tax Savings	Estimated Monthly Rate Impact (Residential)	Use of Savings (proposed by utility)
Duke Energy	\$185 million	\$7.00	Remaining term of settlement: <ul style="list-style-type: none"> \$50 million annual to write down retired coal plant \$135 million annual to cover Irma restoration After term of settlement: TBD
FPL	Not provided	\$4.00 - \$5.50 (per FPL)	Not fully disclosed; all or portion of savings to cover Irma restoration; thereafter, TBD
Gulf Power	Not provided	Not provided	TBD
Tampa Electric	\$98 million	\$4.00	2018: Entire amount to cover storm restoration Remaining term of settlement: Rate reduction After term of settlement: TBD

Other comments on the cost recovery proposal:

- Allows for the inclusion of local undergrounding projects but does not require utilities to do any more than they are currently doing.
- Cap on allowable underground conversions (4% per year) is not a cap on cost or rate impact.
- Appears to preempt part of the PSC storm hardening study recommended by the Select Committee and included in current proviso language which requires the PSC to evaluate and recommend specific funding mechanisms for cost-effective storm hardening measures.
- May lead to arguments among communities about which eligible undergrounding projects should be funded and when, but does not give the PSC clear guidance on how to resolve such issues.
- Inconsistent with the purpose of most cost recovery clauses, which is to address costs that are volatile and/or beyond the utility's control.

Electric Utility Storm Hardening Activities and Related Cost Recovery

Storm Hardening Activities

By rule of the PSC, electric utilities in Florida must file 3-year storm hardening plans. Among other things,ⁱ these plans require that each utility address hardening of transmission structures. In their most recent reports (for calendar year 2016), the utilities and the PSC report the following:

Utility	No. of Structures Hardened (2016)	Average Annual Structures Hardened (2012-2016)	Average Cost per Year (2012-2016)	No. of Structures Remaining to be Hardened	% of Structures Remaining to be Hardened
Duke Energy	1,167 poles	2,377 poles	\$129 million	23,567 poles	40%
FPL	1,737 poles	1,559 poles	\$43.2 million (no data for '12)	7,925 poles	12%
Gulf Power	298 cross arms	221 cross arms (no data for '12)	Not available	57 cross arms	2%
Tampa Electric	940 poles 114 insulators	783 poles 163 insulators	\$15.1 million	7,038 poles	33% (poles)

Utilities do not list specific distribution system undergrounding projects in their storm hardening plans, as such projects are completed at the request of, and at the expense of, developers, communities, or individual customers. Costs for projects to underground distribution lines vary by project. Staff has gathered the following data with respect to undergrounding activities for distribution lines:

Utility	Average Annual Miles of Underground Distribution Facilities Installed* (2007-2016)	Total Miles of Underground Distribution Facilities	Underground Distribution Facilities as a % of Total Distribution Facilities
Duke Energy	242	14,000	44%
FPL	103.5	24,000	33.8%
Gulf Power	28	1,905	25%
Tampa Electric	177	5,000	44%

* A negligible amount of these installations were overhead to underground conversions. In 2005, the PSC estimated total costs of approx. \$84 billion to convert all existing overhead distribution lines. Undergrounding *transmission* lines is rare due to cost and reliability concerns.

Tax Reform Savings

The 2017 Tax Cuts and Jobs Act reduces the federal corporate tax rate from 35% to 21% and changes certain depreciation rules. Currently, the rates for all investor-owned electric utilities in Florida are set through PSC-approved rate settlements with consumer advocates. The rates for each utility factor in the

35% tax rate, but all but one rate settlement addresses the treatment of potential tax savings. The following table summarizes the current status of each utility's expected tax savings:

Utility	Estimated Annual Tax Savings	Estimated Monthly Rate Impact (Residential)	Use of Savings (proposed by utility)
Duke Energy	\$185 million	\$7.00	Remaining term of settlement: <ul style="list-style-type: none"> \$50 million annual to write down retired coal plant \$135 million annual to cover Irma restoration After term of settlement: TBD
FPL	Not provided	\$4.00 - \$5.50 (per FPL)	Not fully disclosed; all or portion of savings to cover proposed \$1.3 billion Irma restoration; thereafter, TBD
Gulf Power	Not provided	Not provided	TBD
Tampa Electric	\$98 million	\$4.00	2018: Entire amount to cover storm restoration Remaining term of settlement: Rate reduction After term of settlement: TBD

Cost Recovery Proposal

A "Storm Protection Cost Recovery Clause" has been proposed for consideration. The table below shows the differences between current law and the proposed cost recovery mechanism.

	Current Law	Proposed
Storm Hardening Plans	Filed every 3 years for PSC review	Filed every 3 years for PSC review; may include undergrounding of up to 4% of all lateral distribution lines annually
Standard of PSC Review of Plans	"meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties;" <u>separate review in rate case for cost recovery</u> (see below)	"meets the desired objectives of enhancing reliability, strengthening infrastructure, and reducing restoration costs and outage times in a prudent, practical, and cost-efficient manner"; and "is feasible, reasonable or practical in certain areas of the utility's service territory" including "flood zones and rural areas" (appears to address undergrounding projects, allowing an "out" for certain areas); <u>approval allows for cost recovery</u>
Undergrounding Projects	Not included in plan; <u>paid for by persons requesting such projects</u>	May be included in plan; <u>paid for by all ratepayers if included in approved plan</u>

Cost Recovery Mechanism	Rate case – <u>taking into account its overall costs and revenues, utility must prove that a certain level of storm hardening costs are prudent and should be included in base rates paid by all customers</u> ; not connected to review of 3-year plans; excludes undergrounding projects	Annual cost recovery – <u>utility actions are deemed prudent if included in approved plan, and, without regard to overall costs and revenues, the costs (+ ROI) are included in a surcharge paid by all customers</u> ; may include undergrounding projects; the prudence of implementing costs may be challenged (this is unclear)
Treatment of Tax Reform Savings	Impact on rates to be addressed by PSC; specifically addressed in current rate settlements (Duke Energy, Gulf Power, and Tampa Electric) that require savings to be calculated and/or credited to customer rates during the terms of the settlements	<u>Must</u> be applied to storm protection fund if the utility is required to return the savings to customers; overrides the 4 rate settlements that address the use of tax savings (for approx. 3-4 remaining years each) and may preempt the PSC and all electric utilities from returning any ongoing tax reform savings to customers through rate reductions

Other considerations on the cost recovery proposal:

- Allows for the inclusion of local undergrounding projects but does not require utilities to do any more storm hardening than they are currently doing.
- Cap on allowable underground conversions (4% per year) is not a cap on cost or rate impact, which is unknown.
- Appears to preempt part of the PSC storm hardening study recommended by the Select Committee and included in current proviso language which requires the PSC to evaluate and recommend specific funding mechanisms for cost-effective storm hardening measures.
- May lead to arguments among communities about which eligible undergrounding projects should be funded and when, but does not give the PSC clear guidance on how to resolve such issues.
- Inconsistent with the purpose of most cost recovery clauses, which is to address costs that are volatile and/or beyond the utility's control.

ⁱ Annual utility reports must address the following storm hardening activities:

- Vegetation management:
 - 3-year cycle for clearing all overhead feeder circuits (main distribution lines)
 - 6-year cycle for clearing all lateral circuits (secondary distribution lines)
- Auditing joint-use agreements for pole attachments by other parties (e.g., phone and cable) to ensure that poles are not compromised by being overloaded.
- Inspection of all transmission structures on a 6-year cycle.
- Inspection of all wooden poles on an 8-year cycle to ensure compliance with the National Electric Safety Code.
- Hardening of transmission structures (e.g., converting from wooden structures to steel/concrete structures).
- Gathering post-storm information and other outage information on competing technologies, performing forensic analysis, and assessing the reliability of overhead v. underground systems on an ongoing basis.
- Coordination with local governments.
- Collaborative research on undergrounding existing distribution lines, data gathering and analysis of hurricane winds, and a public outreach initiative.
- Maintaining a natural disaster preparedness and recovery program.

Electric Utility Storm Hardening Activities and Related Cost Recovery

Storm Hardening Activities

By rule of the PSC, electric utilities in Florida must file 3-year storm hardening plans. Among other things, these plans require that each utility address hardening of transmission structures. In their most recent reports (for calendar year 2016), the utilities and the PSC report the following:

Utility	No. of Structures Hardened (2016)	Average Annual Structures Hardened (2012-2016)	Average Cost per Year (2012-2016)	No. of Structures Remaining to be Hardened	% of Structures Remaining to be Hardened
Duke Energy	1,167 poles	2,377 poles	\$129 million	23,567 poles	40%
FPL	1,737 poles	1,559 poles	\$43.2 million (no data for '12)	7,925 poles	12%
Gulf Power	298 cross arms	221 cross arms (no data for '12)	Not available	57 cross arms	2%
Tampa Electric	940 poles 114 insulators	783 poles 163 insulators	\$15.1 million	7,038 poles	33% (poles)

Utilities do not list specific distribution system undergrounding projects in their storm hardening plans, as such projects are completed at the request of, and at the expense of, developers, communities, or individual customers. Costs for projects to underground distribution lines vary by project. Staff has gathered the following data with respect to undergrounding activities for distribution lines:

Utility	Average Annual Miles of Underground Distribution Facilities Installed* (2007-2016)	Total Miles of Underground Distribution Facilities	Underground Distribution Facilities as a % of Total Distribution Facilities
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Tax Reform Savings

The 2017 Tax Cuts and Jobs Act reduces the federal corporate tax rate from 35% to 21% and changes certain depreciation rules. Currently, the rates for all investor-owned electric utilities in Florida are set through PSC-approved rate settlements with consumer advocates. The rates for each utility factor in the

35% tax rate, but all but one rate settlement addresses the treatment of potential tax savings. The following table summarizes the current status of each utility's expected tax savings:

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Cost Recovery Proposal

A "Storm Protection Cost Recovery Clause" has been proposed for consideration. The table below shows the differences between current law and the proposed cost recovery mechanism.

	Current Law	Proposed
Storm Hardening Plans	Filed every 3 years for PSC review	Filed every 3 years for PSC review <ul style="list-style-type: none"> May include a 3-yr. pilot program to underground up to 1% of a utility's distribution laterals May provide for undergrounding of up to 4% of all distribution laterals annually (est, \$500M/yr. for FPL)
Standard of PSC Review of Plans	"meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties;" <u>separate review in rate case for cost recovery</u> (see below)	"meets the desired objectives of enhancing reliability, strengthening infrastructure, and reducing restoration costs and outage times in a prudent, practical, and cost-efficient manner"; "is feasible, reasonable or practical in certain areas of the utility's service territory," including rural areas and flood zones; and whether: <ul style="list-style-type: none"> Undergrounding is cost effective compared to overhead hardening; The plan addresses the worst

		performing laterals; • Undergrounding will enhance storm restoration, etc., (or other factors deemed relevant by the PSC); <u>Approval allows for cost recovery</u>
Undergrounding Projects	Not included in plan; paid for by persons requesting such projects	May be included in plan; <u>paid for by all ratepayers if included in approved plan</u>
Cost Recovery Mechanism	Rate case – <u>taking into account its overall costs and revenues, utility must prove that a certain level of storm hardening costs are prudent and should be included in base rates paid by all customers</u> ; not connected to review of 3-year plans; excludes undergrounding projects	Pilot program: • Costs recovered at next rate case Ongoing program costs: • Annual cost recovery (beginning Jan. 2022) – <u>utility actions are deemed prudent if included in approved plan, and, without regard to overall costs and revenues, the costs (+ ROI) are included in a surcharge paid by all customers</u> ; may include undergrounding projects; the prudence of implementing costs may be challenged (this is unclear)
Treatment of Tax Reform Savings	Impact on rates to be addressed by PSC; specifically addressed in current rate settlements (Duke Energy, Gulf Power, and Tampa Electric) that require savings to be calculated and/or credited to customer rates during the terms of the settlements	<u>Must</u> be applied to storm protection fund if the utility is required to return the savings to customers; overrides the 4 rate settlements that address the use of tax savings (for approx. 3-4 remaining years each) and may preempt the PSC and all electric utilities from returning any ongoing tax reform savings to customers through rate reductions

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- Inconsistent with the purpose of most cost recovery clauses, which is to address costs that are volatile and/or beyond the utility's control.